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# Why Analytics Fails **And How To Fix It**

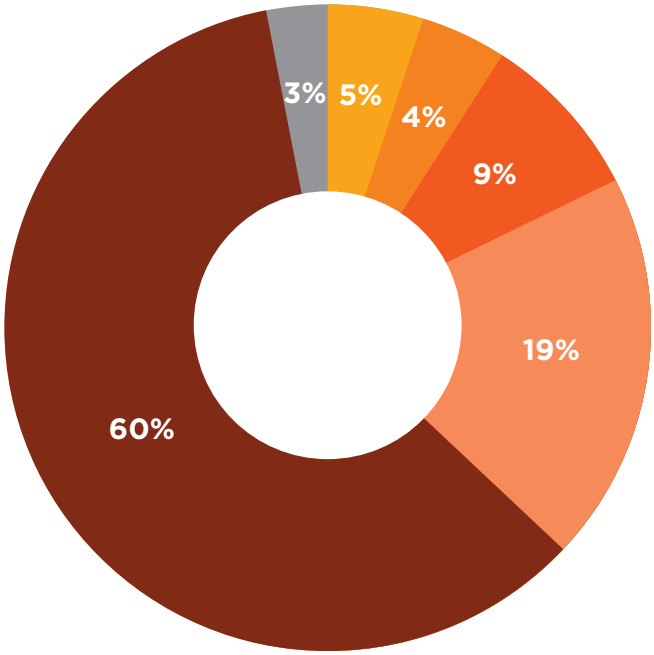
# Why Analytics Fails & How to Fix It

As organizations grow and change, they face increasing complexity and lines of business become more and more isolated. Global competition, increased regulation, and reliance on technology and automation are factors that have organizations looking for ways to manage uncertainty and better understand their growing businesses. Analytics has become the primary enabler to derive truth and meaning from data that can be used to drive business growth.[1]

> **"Analytics has become the primary enabler to derive truth and meaning from data that can be used to drive business growth."[1]**

Analytics, or what is now popularly termed Data Science, is an emerging discipline that requires more than fancy coding. Properly executed, Data Science uses algorithms of sophisticated rules to sift through vast volumes of data to reveal business insights or automate revenue generation, such as internet advertising.

However, according to a recent Forbes study, only about 13% of a Data Scientist's time is spent on actually mining data for patterns and refining algorithms[2]. Organizations typically ignore weaknesses in data quality, data governance, and integration at the point of origin in favor of relying on technology and skilled staff who work with the data secondhand to correct mistakes. Therefore, the majority of a Data Scientist's time is spent collecting and cleaning data sets that contain defects.




### What Data Scientists Spend the Most Time Doing[2]

- **3%** *Buliding Training Sets*
- **9%** *Mining Data for Patterns*
- **4%** *Refining Algorithms*
- **19%** *Collecting Data Sets*
- **60%** *Cleaning and Organizing Data*
- **5%** *Other*

Improving data governance and data quality can relieve an enormous burden from Data Scientists, thus freeing them up to do their job as intended.

## DATA GOVERNANCE

Without data governance, the Data Scientist must rely on business stakeholders to educate them on the details of the business. This is not only inefficient, but risky. Detailed knowledge of the business will vary across, as well as within, business lines, so the analyst must identify relevant stakeholders and harmonize disparate business models into a single data set for analysis.

Having their own in-depth knowledge of the business and how it works will allow the Data Scientist to design a model that defines the scope of data and parameters for analysis. They must clearly

[1] ***Forbes Insights, June 2017:*** *"Data Analytics Is No Longer A Nice Option—It's The Core Of The Enterprise"*
[2] ***Forbes, 2016:*** *"Cleaning Big Data: Most Time-Consuming, Least Enjoyable Data Science Task, Survey Says"*

understand the business problem and have a firm grasp of the business language, corresponding data that is created and stored, and knowledge of what "good enough" data looks like. In other words, fundamental data management practices directly impact analytical success.

### DATA QUALITY

> **"84% of CEOs are concerned about the quality of the data they base decisions on.[3]"**

84% of CEOs are concerned about the quality of the data they base decisions on[3]. The insights and conclusions that can be drawn from data will be only as good as the data used to obtain them; therefore, the focus on quality is as important as ever today[4].

Lacking a data quality capability leaves it to the Data Scientist to determine the detection and remediation measures needed to ensure their analysis does not become the epitome of "garbage in/garbage out". This can be cumbersome at best and an embarrassing failure at worst.

What frequently occurs is a discrepancy in results made by different analysts—even when using a copy of the same data set with roughly the same models, they don't rectify defects in the same way. Thus, confidence in their results is lost and both teams must reconcile their work.

Looking toward the future, quality data will be used as fundamental groundwork for the adoption of transformative technologies that will enable businesses to innovate and differentiate themselves down the line[4].

### IMPROVE YOUR ABILITY TO DERIVE ACTIONABLE INSIGHTS FROM DATA WITH THE DATA MANAGEMENT MATURITY (DMM)℠ MODEL

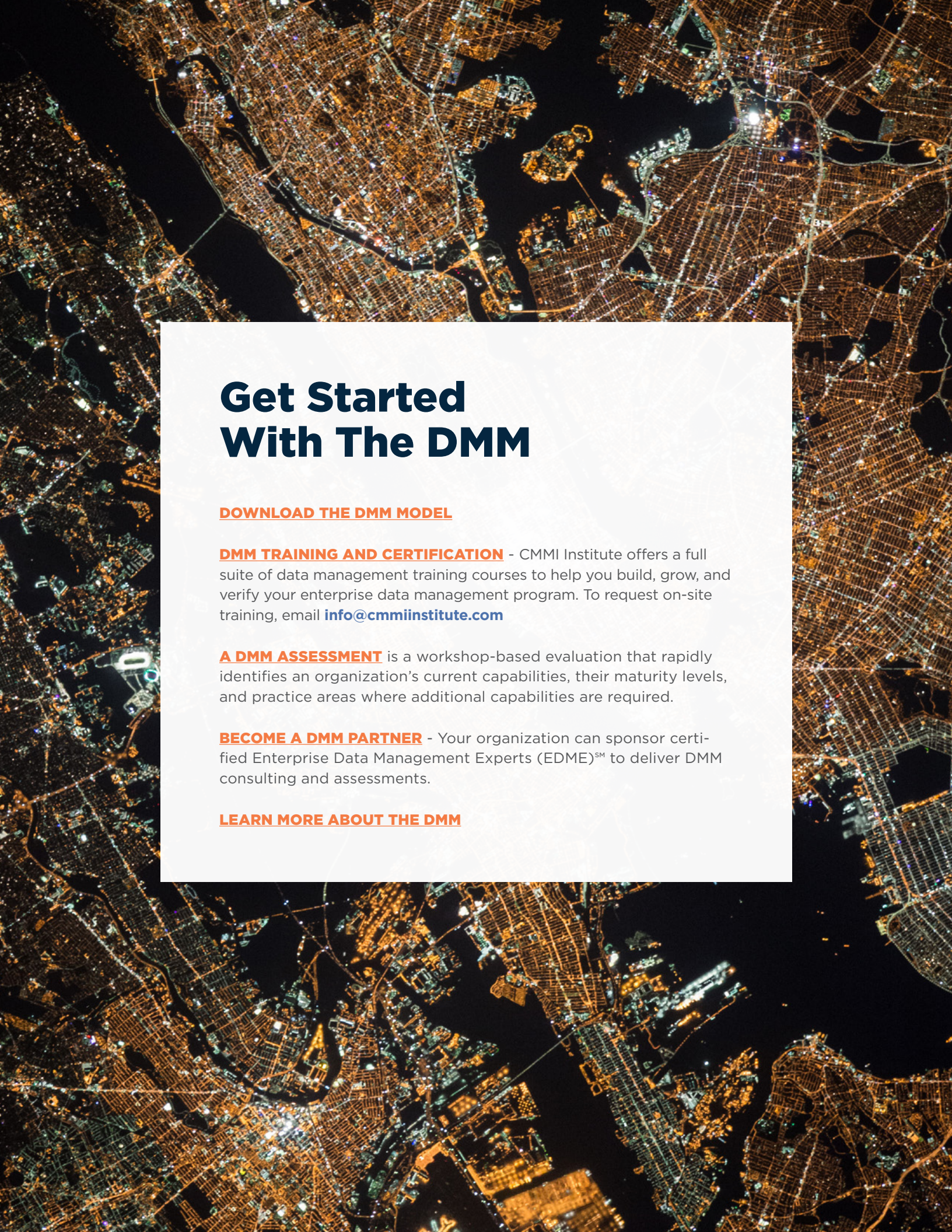
The Data Management Maturity model provides guidance not just for improving data governance and quality, but all aspects that must be addressed to empower an organization's ability to gain insights from its data. The DMM enables the organization to precisely identify strengths and gaps, and accelerates the creation of a customized roadmap for data management improvement. The framework provides best practices for implementing Data Strategy, Governance, Quality, Operations, and Architecture.

The DMM model contains 25 process areas with 414 functional practices that, if implemented, will ensure robust, sustainable support for data analytics and agile automation. Data management is a shared responsibility that impacts the entire organization, reflected in the broad topics represented in the model. The DMM is a measurement tool for evaluating an organization's current capabilities and contains a built-in path to improvement, reflecting successful capability growth proven by mature organizations. The DMM is a lodestone for building data management programs and a benchmark for assured success.

### Table 1: DMM Categories and Process Areas

| | |
|---|---|
| **DATA MANAGEMENT STRATEGY** | Data Management Strategy |
| | Communications |
| | Data Management Function |
| | Business Case |
| | Program Funding |
| **DATA GOVERNANCE** | Governance Management |
| | Business Glossary |
| | Metadata Management |
| **DATA QUALITY** | Data Quality Strategy |
| | Data Profiling |
| | Data Quality Assessment |
| | Data Cleansing |
| **DATA OPERATIONS** | Data Requirements Definition |
| | Data Lifecycle Management |
| | Provider Management |
| **PLATFORM & ARCHITECTURE** | Architectural Approach |
| | Architectural Standards |
| | Data Management Platform |
| | Data Integration |
| | Historical Data, Archiving & Retention |
| **SUPPORTING PROCESSES** | Measurement and Analysis |
| | Process Management |
| | Process Quality Assurance |
| | Risk Management |
| | Configuration Management |

[3] ***KPMG, 2016:*** *"2016 Global CEO Outlook"*
[4] ***Forbes Insights, 2017:*** *"The Data Differentiator"*



# Get Started With The DMM

**DOWNLOAD THE DMM MODEL**

**DMM TRAINING AND CERTIFICATION** - CMMI Institute offers a full suite of data management training courses to help you build, grow, and verify your enterprise data management program. To request on-site training, email **info@cmmiinstitute.com**

**A DMM ASSESSMENT** is a workshop-based evaluation that rapidly identifies an organization's current capabilities, their maturity levels, and practice areas where additional capabilities are required.

**BECOME A DMM PARTNER** - Your organization can sponsor certified Enterprise Data Management Experts (EDME)℠ to deliver DMM consulting and assessments.

**LEARN MORE ABOUT THE DMM**